

Remarks:

Reconsideration of the application is requested.

Claims 1-5 and 9 are now in the application. Claims 1, 4, and 5 have been amended. A marked-up version of the claims is attached hereto on separate pages. Independent claim 9 has been added. Claim 6 has been cancelled.

In item 3 on page 2 of the above-identified Office action, the drawings have been objected to under 37 CFR 1.83(a). The Examiner stated that "the means for rotating said cutting cylinder and said transfer cylinder" as set forth in claim 5, and the "means for rotating said transfer cylinder" as set forth in claim 6 must be shown or the feature(s) cancelled from the claim(s). Claim 5 has been amended so as to overcome the objection to the drawings by the Examiner. Claim 6 has been cancelled.

In item 4 on page 3 of the Office action, claims 1-6 have been rejected as being indefinite under 35 U.S.C. § 112.

More specifically, the Examiner has stated that in claim 1, line 3, "cutting cylinder" is vague and indefinite and appears to be inaccurate because the disclosed feature is not cylindrical, and thus the scope of the limitation using this

term cannot be ascertained, and the Examiner suggests to change "cutting cylinder" to --rotary cutter-- or the like. The claims have been amended to overcome the rejection. The term "cutting cylinder" has been replaced with the term "rotary cutter". However, it is noted for the record that the term "cutting cylinder" is not inaccurate in the context. The term cylinder as defined in Chamber's Technical Dictionary on page 220, enclosed with this amendment, defines a cylinder as a solid uniform cross-section which may be generated by a straight line moving round a closed curve and remaining parallel to a given direction. Apparently, what the Examiner deems as a cylinder is actually a "right circular cylinder" for which the closed curve is a circle whose plane is perpendicular to the axis of the cylinder.

The Examiner further stated that in claim 4, the recitation "each connected to" renders the claim vague and indefinite, particularly since it seems that the gripper and tucking blade are each part of the transfer cylinder and it's not clear how they can be both part of and connected to the transfer cylinder. Claim 4 has been amended so as to overcome the rejection.

It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further

objectionable items, counsel would appreciate a telephone call during which the matter may be resolved. The above-noted changes to the claims are provided solely for the purpose of satisfying the requirements of 35 U.S.C. § 112. The changes are not provided for overcoming the prior art nor for any reason related to the statutory requirements for a patent.

In item 6 on page 4 of the Office action, claims 1-6 have been rejected as being fully anticipated by Barber (U.S. Patent No. 2,222,279) under 35 U.S.C. § 102.

In item 7 on page 4 of the Office action, claims 1, 3, 5, and 6 have been rejected as being fully anticipated by Elsner et al. (U.S. Patent No. 5,363,728) under 35 U.S.C. § 102.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

"an adjustable diameter portion disposed in said circumferential region of said transfer cylinder, said adjustable diameter portion being movable in a direction toward and away from said central cylinder axis, said adjustable diameter portion adjusting the desired cutoff length of the signatures."

The Barber reference discloses handling two different sized products of a rotary web printing press, one where the form cylinder is an even number of plates around and the other where the form cylinder is an odd number of plates around (page 1, column 1, lines 1-6). Barber discloses two independently operating units, each used for a different size signature, where only one unit is operational at any given time (page 1, column 1, lines 7-25).

Clearly, the reference does not show an adjustable diameter portion disposed in the circumferential region of the transfer cylinder for adjusting the desired cutoff length of the signatures, as recited in claim 1 of the instant application. Barber discloses handling of only two different sized signatures, each of which is handled by a separate unit while the other unit is not operational. Barber does not disclose any kind of adjusting of a transfer cylinder to produce signatures of varying length. This is completely contrary to the invention of the instant application, in which adjusting

the adjustable diameter portion can produce signatures of varying length by merely adjusting the adjustable diameter portion.

The Elsner et al. reference discloses a web cutter with a knife roll (12) located above an anvil roll (14). The knife roll contains a plurality of fixed cutting knives (32) and the anvil roll (14) contains a plurality of fixed anvils (40) for cutting signatures of a constant length. The anvil roll also includes a lift plate (42) located immediately upstream of each anvil (40) (column 2 lines 40-62). The lift plates (42) are provided for the purpose of raising the severed lead end of the web above the anvil (40), in order to assure proper feeding to the discharge conveyor over guideplate (26). The Elsner et al. reference further discloses that after the cut is made by the cutting knives (32) and the anvils (40) the lead edge (56) of the lift plate (42) engages the lower surface of the web and holds the web against the adjacent edge of the knife roll (12) (column 3, lines 31-37).

Clearly, the reference does not show an adjustable diameter portion disposed in the circumferential region of the transfer cylinder for adjusting the desired cutoff length of the signatures, as recited in claim 1 of the instant application. The Elsner et al. reference discloses a web cutter for cutting webs of constant length, the lift plate (42) provided by the

reference is used only for the purpose of raising the severed lead end of the web above the anvil (40), in order to assure proper feeding to the discharge conveyor over guideplate (26). The lift plate is in no way used to vary the length of the signature, as it does not contact the lower surface of the web until after the cut is made. This is completely contrary to the invention of the instant application, in which adjusting the adjustable diameter portion can produce signatures of varying length.

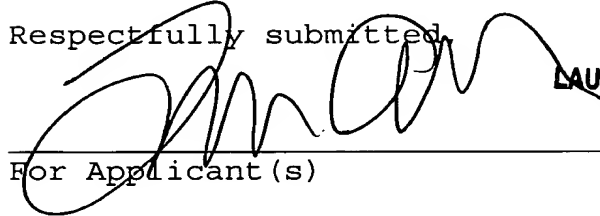
It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest an adjustable diameter portion disposed in the circumferential region of the transfer cylinder, the adjustable diameter portion being movable in a direction toward and away from the central cylinder axis, the adjustable diameter portion adjusting the desired cutoff length of the signatures, as recited in claim 1 of the instant application. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well. Claim is patentable on similar grounds as claim 1.

In view of the foregoing, reconsideration and allowance of claims 1-5 and 9 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner & Greenberg P.A., No. 12-1099.

Respectfully submitted,



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Marked-up version of the claims:

Claim 1 (twice-amended). A variable length cutting device, comprising:

a [cutting cylinder] rotary cutter;

a transfer cylinder cooperating with said [cutting cylinder] rotary cutter for cutting a ribbon into signatures having a desired cutoff length, said transfer cylinder having a central cylinder axis and a circumferential region; and

an adjustable diameter portion disposed in said circumferential region of said transfer cylinder, said adjustable diameter portion being movable in a direction toward and away from said central cylinder axis [for] ,said adjustable diameter portion adjusting the desired cutoff length of the signatures.

Claim 4 (amended). The cutting device according to claim 1, including a gripper and a tucking blade each [connected] mounted to said transfer cylinder and disposed in said circumferential region at a fixed distance from said central

cylinder axis, and said adjustable diameter portion being located between said gripper and said tucking blade.

Claim 5 (twice-amended). The cutting device according to claim 1, including a cutting blade fixed to said [cutting cylinder] rotary cutter and a cutting ledge disposed in said circumferential region of said transfer cylinder for cooperating with said cutting blade[, and means for rotating said cutting cylinder and said transfer cylinder in synchronism].

Claim 9 (new). A variable length cutting device, comprising:

a rotary cutter;

a transfer cylinder cooperating with said rotary cutter for cutting a ribbon into signatures having a desired cutoff length, said transfer cylinder having a central cylinder axis and a circumferential region carrying the ribbon during a cutting operation; and

an adjustable diameter portion disposed in said circumferential region of said transfer cylinder, said adjustable diameter portion being movable in a direction toward and away from said central cylinder axis, said adjustable diameter portion adjusting the desired cutoff

length of the signatures by selectively shortening and
lengthening the circumferential region carrying the ribbon.

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cyclo-

cyclo- (Chem.). Containing a closed carbon chain or ring.

cyclohexane (Chem.). C_6H_{12} , m.p. $2^\circ C$, b.p. $68^\circ C$, a colourless liquid, of mild ethereal odour.

cyclohexanol (Chem.). $C_6H_{11}OH$, m.p. $16^\circ C$, b.p. $160^\circ C$, a sp. gr. 0.946, an oily, colourless liquid.

cyclohexanone (Chem.). Keto-hexamethylene, b.p. $154-156^\circ C$, sp. gr. 0.945, a colourless liquid, of acetone-like odour, solvent for cellulose lacquers.

cyclopentane (Chem.). See **cyclohexane**.

cyclopentadiene (Chem.). See **cyclopentadiene**.

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cylindrical

members of which are spherical or cylindrical in form, and possess two tentacles, retractile into sheaths.

Cybele (Orbit.). Pregnancy.

Cylinder. A solid of uniform cross-section which may be generated by a straight line moving in a given direction (the axis). What is usually understood by the word is a right circular cylinder for which the closed curve is a circle whose plane is perpendicular to the axis of the cylinder.

Cylinder (Eng.). The tubular chamber in which the piston of an engine or pump reciprocates; the internal diameter is called the bore, and the piston-travel the stroke.

Cylinder barrel (Eng.). The wall of an engine cylinder, as distinct from the cylinder itself, which term includes the head or cover.

Cylinder bit (Carp.). A steel drill with helical cutting edge, used for precise boring.

Cylinder bore (Eng.). See **Cylinder** (Eng.).

Cylinder culson (Civ. Eng.). A culson formed of hollow cylindrical cast-iron sections arranged one on top of another, so that there is always one above water-level, while the bottom one is a special cutting section. As excavation proceeds within the cylinder, the loaded sections sink, and when they have reached a sufficient depth, the cylinder is filled with concrete.

Cylinder of a reciprocating engine or compressor. The cylinder cover (Eng.). The end cover of the cylinder of a reciprocating engine or compressor.

Cylinder-dried (Paper). Paper which has been dried by being passed over heated cylinders.

Cylinder escapement (Horol.). A frictional rest-escapement in which the balance is mounted on a hollow cylinder, and a tooth of the escape wheel gives impulses to the balance by pressing against the lips of the cylinder, the action being that of a wedge. The escape wheel is locked by the tip of the tooth pressing against the outside or inside of the cylinder. The teeth of the escape wheel are mounted on 'stalks' and stand at right-angles to the plane of the wheel. To admit the entry of the teeth into the cylinder, about one-half of the cylinder is cut away where the teeth enter. Also known as **HORIZONTAL ESCAPEMENT**.

Cylinder head (Eng.). The closed end of the cylinder of an internal-combustion engine; it may be either integral with the barrel or detachable, and sometimes carries the valves.

Cylinder oils (Lubricant). Dark or red oils with high viscosity, suitable for use in steam and internal-combustion engine cylinders. See **machinery oils, lubricants**.

Cylinder press (Typog.). (1) A proofing press in which pressure is applied by means of a rolling cylinder. (2) A general term used to distinguish cylinder printing machines from hand presses and rotary machines.

Cylinder top (Turn.). A semicircular cover to a desk, etc., sliding in a groove.

Cylinder wrench (Plumb.). See **pipe wrench**.

Cylindrical. Elongated, and circular in cross-section.

Cylindrical gauge (Eng.). A length gauge of cylindrical form whose length and diameter are made to some standard size. See **gauge**.

Cylindrical grinding (Eng.). The operation of accurately finishing cylindrical work by a high-speed abrasive wheel. The work is rotated by the headstock of the machine and the wheel is automatically traversed along it under a copious flow of coolant.

Cylindrical lens (Photog.). A lens cut in the shape of a segment of a cylinder, i.e. a shape generated by a straight line moving parallel to itself and tracing an arc of a circle on a normal plane. Used to obtain a line image, as in sound

cylindrical

recording on film or in reproducing from a sound track.

Cylindrical record (Acous.). The Edison-type of gramophone record, in which the reproducing needle traverses a spiral (helical) record on its surface.

Cylindrical rotor (Elec. Eng.). A rotor of an electric machine in which the windings are placed in slots around the periphery, so that the surface is cylindrical.

Cylindrical winding (Elec. Eng.). A type of winding used for core-type transformers; it consists of a single coil of one or more layers wound concentrically with the iron core; it is usually long compared with its diameter.

Cylindrite (Min.). A complex sulphide of lead, tin, antimony, which has a cylindrical habit.

The crystal system is not known for certain.

Cylindroscop (Photog.). A cylindrical apparatus for viewing naturally panoramic photographs taken with a rotating camera.

Cyma (Arch.). A much-used moulding showing a reverse curve in profile. Also called an **onx**.

Cyma recta (Arch.). A cyma which is concave at the top and convex at the bottom.

Cyma reversa (or **inversa**) (Arch.). A cyma which is convex at the top and concave at the bottom.

Cym'iform (Bot.). Shaped like a boat.

Cymbulum (Zool.). A small male spider, the cup-shaped tarsus of the pedipalpus, containing the palpal organ.

Cyme (Bot.). An inflorescence in which the main axis ends in a flower, and in which subsequent flowers are produced at the ends of lateral axes or of successive branches from these.—**adi-**, **cy-**, **me** (Chem.). $CH_3 \cdot C_2H_5 \cdot CH_2 \cdot CH_3$, isopropyl-symon'eter (Radio). An early form of wave-meter, comprising a helix surrounded by an adjustable tube. Resonance is indicated by the glowing of a neon lamp connected to the helix.

Cymophane (Min.). A variety of the gem-mineral chrysoberyl which exhibits chatoyancy; sometimes known as **CHRYSOBERYL CAT'S EYE** or **ORIENTAL CAT'S EYE**.

Cymoscope (Radio). An obsolete term for any detector of electric oscillations.

Cynopodous (Zool.). Having non-retractile claws; as dogs.

Cypella (Bot.). A small cup-shaped hollow in the under surface of the thallus of some lichens.

Cynonaves (Zool.). A dilated pedicel larval form of ectoparasitic *Polysus*, possessing a bivalve shell.

Cypress knees (Bot.). A vertical upgrowth from the roots of the swamp cypress. It is very loose in structure, and acts as a pneumatophore.

Cypella (Bot.). A one-seeded fruit, formed from a syncarpous inferior ovary.

Cyst-, **cysto-** (Greek *kysta*, bladder). A prefix used in the construction of compound terms; e.g. **cysticulous** (q.v.).

Cyst (Zool.). A non-living membrane enclosing a cell or cells; any bladder-like structure, as the gall-bladder or the urinary bladder of vertebrates; a sac containing the products of inflammation.—**ad-**, **cystic**, **cystoid**, **cystiform**.

Cystine (Biochem.). A type of paracystine occurring in Sponges, characterized by vacuolar cells (*cystocytes*) closely packed or embedded in a gelatinous matrix.

Cystic (Zool.). Pertaining to the gall-bladder; pertaining to the urinary bladder.

Cystic adenoma (Med.). An adenoma containing numerous cysts.

Cysticercoid (Zool.). A bladderworm of which the

cystogenesis

bladder is but slightly developed and may possess a tail-like appendage.

Cysticercosis (Med.). Infection with cysticerci.

Cysticercus (Zool.). A bladderworm possessing a well-developed bladder, with one scolox.

Cysticifolius (Zool.). Cyst-inhabiting.

Cysticolum (Bot.). A swollen, elongated, sterile hypha, occurring among the basidia of the hymenium of some *Hymenomycetes*, usually projecting beyond the surface of the hymenium.

Cystine (Chem.). A sulphur-containing amino-acid, $H_2N \cdot CH(NH_2) \cdot CH_2 \cdot S \cdot CH_2 \cdot CH(NH_2) \cdot COOH$, present in many proteins, but particularly in the keratins of hair, wool, and skin. It readily undergoes reversible reduction to *cysteine*, $HS \cdot CH_2 \cdot CH(NH_2) \cdot COOH$, a reaction which may be important in relation to protein structure.

Cystitis (Med.). Inflammation of the bladder.

Cysto-rhiza (Zool.). Soid of gonads (such as those of most *Nepteryi*) which are enclosed within coelomic sacs. Cf. *gynocoele*.

Cystoterm (Bot.). The body which forms after fertilisation in the red alga.

Cystoterm (Med.). Hernia of the bladder.

Cystoterm (Zool.). See *cystoterm*.

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